

these twenty-eight were medical and thirty-seven surgical. Of the medical patients admitted 1.6 per cent died; of the surgical diabetics the mortality was 10 per cent, six times as great. Moral: The surgical diabetic demands six times the attention given to the medical diabetic and more, for he demands the attention of the physician as well as the surgeon. In passing I might add that the number of diabetics being operated upon is rapidly increasing.

Autopsies Upon Diabetics—Shields Warren is reporting autopsies upon eight of my diabetic children either by himself or various pathologists during the last twenty-five years and, in addition, Dr. John of Cleveland and Doctors Stansfield and Starrow of Worcester have contributed two other cases to the list. These are instructive. In no instance do they show the pancreas to be exhausted, much less the islands. Hyalin degeneration, common in the pancreas of the old diabetic, was absent and lymphocytic infiltration, rare in the pancreas of the old, was invariably present. Hydropic degeneration was disclosed in but a single case. The changes in the gland did not appear irreversible and for these to take place time appeared to be a large factor. I mention the paper chiefly because I believe the field for morphological studies upon the diabetic pancreas has been by no means exhausted and that we clinicians should secure for our pathologists more such opportunities for research. No report of a diabetic fatality today is of great significance without a statement of the postmortem examination.

How should our patients regard an autopsy? It should be looked upon simply as an operation. Statistics suggest that every other diabetic goes to the surgeon during the course of his disease. If every other diabetic must be operated upon before he dies I believe that every diabetic should be operated upon after he dies. An operation during life is attended with pain and is for the benefit of the individual. An operation after death is without pain, but for the good of humanity.

Such examinations should be performed within three hours after the death of the patient. A few thin sections of the pancreas one-fourth inch wide should be taken from the head, tail, and body of the gland and placed in a preserving fluid (Zenker's fluid is the best), but if unavailable a 10 per cent solution of formaldehyde could be substituted, or one could use 95 per cent alcohol.

(To be continued in the March issue)

Rip Van Winkle, the nickname given to the armored dinosaur which has recently been placed on exhibition in the London Museum of Natural History, was a vegetarian, according to the label attached by naturalists to its glass case, says the *New York Times*. Thus it has taken thirty million years to explode the myth that the animal was a murderous monster and terror to such men as Mr. Neanderthal and M. Cromagnon, the most famous of the prehistoric people. According to the naturalists a tiny disease-carrying flea, which occupies a case adjoining that of the dinosaur, was a far deadlier creature.—*M. J. and Record*.

Those Busy Bees—The Charity Organization Society, New York City, has records on 3300 social welfare agencies which have sought public support in the city or upstate. Of this number 1450 are active at the present time.—*Health News*, New York State Department of Health.

A SURVEY OF PRENATAL CARE IN CALIFORNIA *

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ACCUMULATING facts from which any deductions can be drawn on the medical procedures of individual physicians is treading on delicate ground.

It is necessary to rely on questionnaires, and unless the woman answering a prenatal questionnaire is quite intelligent her answers may be misleading. Our first survey of 144 cases for prenatal care, babies under 6 months of age, was made in San Francisco in 1922. The answers were taken by two trained nurses, and the questions carefully explained—that is, as to pelvic measurements and blood pressure. In no case was the name of the doctor or hospital included.

In the second group studied, in July, 1925, 146 cases were surveyed. These mothers had babies under 6 months of age, thus in no way overlapping the first group. The answers were written down by an intelligent laywoman, who had for illustration a pelvimeter and a blood pressure apparatus. These were San Francisco cases, and the groups were both from the Children's Health Center of the American Association of University Women and the Emporium Baby Center of the San Francisco Board of Health. Both places attract an intelligent group of young mothers, the wives of clerks, street railway employees, postmen, mechanics, etc. They are a rather uniform group.

In the third group, numbering 129, surveyed in 1926, the questionnaire was answered by mothers with babies under 6 months, the births not under the same doctor, in most cases. The answers were written down by the nurse taking the record. They cover twelve counties, six in the northern and six in the southern part of the state, sixty-five mothers in one group and sixty-four in the other. We avoided towns of any considerable size, desiring to get the average of prenatal care throughout the state. The points brought out are tabulated as follows: In general these cases were confined by private physicians; out of 417 cases only three were delivered by midwives. For the purpose of comparison, we have charted the 1922 and 1925 cases from San Francisco as urban cases, and the 1925 cases from the state at large as rural cases.

CHART 1

Urban			Rural
1922	1925		1925
34	7	Home deliveries	88
110	139	Hospital deliveries	44
144	146	Total	129
112	127	Private doctor	118
30	19	Staff doctor	10
1	0	Midwife	1
143	146	Total	129

* Read before the San Francisco County Medical Society, August, 1926.

CHART 2

Urban			Rural
1922	1925		1925
90	99	First baby.....	59
21	30	Second baby.....	25
9	11	Third baby.....	21
23	6	Later baby.....	14
110	103	Normal delivery.....	101
24	35	Instrumental delivery.....	26
4	3	Breech.....	6
5	5	Caesarean section.....	3

These tabulations show several things clearly:

First. That in all three groups prospective mothers consult physicians early in pregnancy.

CHART 3

Urban			Rural
1922	1925	When Engaged Doctor	1925
27	49	1-2 months.....	45
22	34	3 months.....	21
22	25	4 months.....	12
10	11	5 months.....	4
15	11	6 months.....	11
13	16	7 months.....	10
8	0	Later.....	15
		In labor.....	8

Second. Complete physical examination is made in urban cases more frequently.

CHART 4

Urban			Rural
1925		Complete Physical Examination	1925
105		Yes.....	66
41		No.....	63

In San Francisco (1925) eighteen cases had no physical examination and no prenatal care. Twelve of them were primiparae.

Third. That in prenatal care the urine is quite uniformly examined, and frequently.

CHART 5

Urban			Rural
1922	1925	Prenatal Examination Urinalysis	1925
21	59	Every two weeks.....	31
40	76	Every month.....	38
8	0	Every two months.....	3
6	6	Once.....	15
12	4	Twice.....	11
48	3	No prenatal examination.....	16

Fourth. That pelvic measurements have been more generally made in the second group in San Francisco; U. C. 1925.

CHART 6

Urban			Rural
1922	1925	Prenatal Examination	1925
121	130	Urinalysis.....	74
20	5	No urinalysis.....	33
3	11	One urinalysis.....	13
27	41	Weight recorded.....	29
117	105	Weight not recorded.....	95
67	90	Pelvis measured.....	55
77	56	Pelvis not measured.....	70

Fifth. That blood pressure and pulse rate receive increasing attention.

CHART 7

Urban			Rural
1922	1925	Prenatal Examination	1925
76	98	Blood pressure taken.....	62
68	48	Blood pressure not taken.....	64
		Pulse rate taken.....	69
		Pulse rate not taken.....	56

Sixth. That the importance of weight observation and control of an over-rapid increase has not received much attention. (See Chart 6.)

CHART 8

	Urban
	1922
No external or internal examination after third month.....	3
No external or internal examination after fourth month.....	7
No external or internal examination after fifth month.....	16
No external or internal examination after sixth month.....	15
No external or internal examination after seventh month.....	26
No external or internal examination after eighth month.....	31
No external or internal examination after term.....	9
External or internal examination in labor.....	16
	1925
No external examination.....	43
No internal examination.....	47

Seventh. A complete analysis of the matter of internal and external examination shows a great variety of custom and little sense of the value in the first two months of pregnancy of the internal examination, and the corresponding importance in the seventh and eighth months of a series of external examinations as a guide to the prognosis of labor, both in the presentation and position of the child and in its approximation to the maternal passage. Rectal examinations were not surveyed. In 1922 fifty-seven examinations out of a possible 144 in San Francisco were made in the seventh and eighth months. Thirty-five cases were examined prior to the seventh month, and thirty-six had no external or internal examination prior to labor. Two Caesareans were in this group.

Eighth. A careful study of the rural cases impresses one with the facts that operative deliveries were 1 to 5, or 20 per cent, whereas in San Francisco in 1922 they are 16.7 per cent, 1 to 6, and in 1925, 29.5 per cent, or 1 to 3. Does this increase bear any relation to the extensive hospitalization of maternity cases in San Francisco? (See Chart 2.)

The suggestion has been made that in San Francisco a five-year study of infant mortality could be made for the neonatal period, that is, from birth to 14 days of age, by reviewing the hospital records of the last three years, and including 1926 and 1927. An increasing number of our maternity cases are delivered in hospitals. The statistics of 1919 show 56 per cent, of 1922, 65 per cent, and since that date the large maternity service of the St. Francis Hospital has been developed.

The five causes for death of the new-born, as given by the United States Census Bureau, are toxemia, traumatism, syphilis, congenital defects and debility. How far does this 13 per cent increase in forceps deliveries influence the traumatic deaths of the infant? There is need for such analyses if we are to grasp and try to reduce the 47 per cent of the infant mortality of the first year of life, which occurs in the first month.

We may learn also from the general practitioner in the rural districts that he assumes a responsibility in teaching the mother the care of the baby,

CHART 9

Urban 1922	Instruction on Care of Baby	Rural 1925
48	Nurse	66
9	Doctor	72
0	Intern	1
87	No instruction	21
	Instruction from nurse and doctor both	39

and the nurse does the same. To bridge this gap in the San Francisco maternity care, an instructive visit after the baby and mother leave the hospital was offered to private physicians by an expert obstetrical nurse under one of the organizations assisted by the Community Chest. This service was requested by 250 physicians at several of our large maternity hospitals during the last two years. A similar service is still given by the San Francisco Hospital and to the ward patients at the University of California and Stanford hospitals, but this had to be cut out for the private physicians, as the budget of the Community Chest necessitated cuts in all organizations financed by them. After six months, it has been re-established as meeting a real need.

The lack of appreciation of the value of a complete physical examination as a preliminary to prenatal care shows up clearly in these statistics. (See Chart 4.) No more impressive words came from Dr. Emmett Holt in his last visit in San Francisco than these: "Our greatest fault as physicians is that we do not use all we know."

A pamphlet called "Standards of Prenatal Care" has been issued during the past year by the Children's Bureau, and distributed with a record blank for care during pregnancy. This pamphlet expresses the combined judgment of seven professors of obstetrics and associate professors in seven university medical schools. California is represented by Dr. Frank W. Lynch, Professor of Obstetrics and Gynecology, University of California Medical School; also, Dr. George Clark Mosher, chairman of Committee on Maternal Welfare, American Association of Obstetricians and Gynecologists, and Dr. Ralph W. Lobenstein, chairman of the Medical Advisory Board of the Maternity Center Association of the City of New York; and the medical directors of the Bureau of Child Hygiene of the New York State Board of Health and the Kentucky State Board of Health. The points not covered in our questionnaire, and given in this national set of standards, are the taking of the temperature of cases at each prenatal visit, and the blood for a Wassermann test, and including the transverse diameter of the outlet with the external pelvic measurements. This pamphlet and the chart for pregnancy records can be obtained from the Bureau of Child Hygiene of the State Board of Health, State Building, San Francisco.

The education of the public on the necessity of prenatal care has been vigorously carried on by the Children's Bureau of Washington under the Infancy and Maternity Welfare Division. This stimulation and interest in prenatal care and the importance of childbirth as a forerunner of health or invalidism shows in the early call on the physician and the co-operation in regular visits. The work of

CHART 10

Urban 1922	Urban 1925	Who Sent You to Health Center or Public Health Nurse?	Rural 1925
1	11	Doctor	14
119	110	Friends	11
4	6	Nurse	7
		Visit of nurse	19
17	—	Board of Health	
	10	Reading in paper	
		Metropolitan Life Insurance Co.	9
		Self	18

public health nurses, subsidized by the Government grant to our state, stimulates and spreads the knowledge of the value of this early care by the doctor. The end result of education in health is to make a more intelligent and therefore more critical laity.

It may be of interest to you to know that the maternal mortality rate per thousand live births in 1920 in California was 7.1, and per thousand total births, including stillbirths, was 6.8. In 1924, was 5.2 per thousand live births, and 5.1 per thousand total births, including stillbirths. This means, as there were 86,900 births in 1924, a saving of 185 mothers. In addition we must always remember that approximately 35 per cent of the puerperal deaths are deaths from sepsis, and the next largest toll gatherer in toxemia.

In closing, I wish to acknowledge the statistical work on the 1925 questionnaires done by Mrs. Flora May Fearing of Stanford University, instructor to public health nurses in the Stanford Public Health Nursing Course, and the co-operation of the San Francisco Board of Health and the Children's Health Center of the Association of University Women in furnishing us the privilege of collecting data from their mothers, and to the nurses subsidized by the Infancy and Fraternity Welfare grant from the Children's Bureau and co-operating under the Bureau of Child Hygiene, California State Board of Health, August, 1925.

Epidemic Meningitis—Most of the laity and many physicians think that patients recovering from epidemic meningitis are liable to be seriously handicapped, especially in their mental development. For this reason Josephine B. Neal, Henry W. Jackson, and Emanuel Appelbaum, New York (*Journal A. M. A.*), have followed up as many of their patients who recovered as possible to learn what percentage of cases show after-effects, and the nature of them. The mortality for 627 cases was 29.8 per cent. The mortality was highest among patients under 1 year of age (46.5 per cent); among patients over 30 it was 30.8 per cent; from 1 to 2 years it was 29.2 per cent. The great majority of patients, 82 per cent, make a complete recovery. About 18 per cent show sequelae, and these are often of a serious nature. The most important and frequent of the sequelae is deafness (7.7 per cent). Defects of vision are of rarer occurrence (2.1 per cent); paralysis occurred in 3.2 per cent; mental disturbances in 2.3 per cent. Rarer but nevertheless important sequelae were also encountered. In two instances there were sphincteric disturbances—one rectal and one vesical. One patient developed a pachymeningitis nearly two years later. Another patient developed a complete transverse myelitis, which had its inception early in the convalescent period.

"The Passing of the Professor" by Otto Heller, and "Who is a Moron?" by Henry H. Goddard, published in the January issue of the *Scientific Monthly*, contain information of value to physicians.